

August 14, 2003

To: Interested Parties

From: Steve Keller, Chief Assistant General Counsel  
Al Mobley, MAI, CCIM, CAE, AAS, Revenue Program Administrator

Re: Third draft of the *Florida Uniform Market Area Guidelines*

Enclosed is the Department of Revenue's third draft of the *Florida Uniform Market Area Guidelines*, dated August 14, 2003. When adopted, this document will become part of the Department's Manual of Instructions for Property Appraisers and other officials connected with the administration of property taxes developed pursuant to section 195.062, Florida Statutes. When completed by the adoption of the *Florida Uniform Market Area Guidelines*, the Manual of Instructions will contain:

1. Rules and regulations, including the *Florida Uniform Market Area Guidelines*;
2. The valuation guidelines (standard measures of value) developed pursuant to section 195.032, Florida Statutes. These guidelines consist of:
  - a) The Florida Real Property Appraisal Guidelines,
  - b) Classified use guidelines for agricultural property pursuant to section 193.461, Florida Statutes, and
  - c) Tangible personal property guidelines;
3. Forms and instructions relating to the use of the forms; and
4. Instructions relating to the use of maps.

Prior to the development of the initial draft of the *Florida Uniform Market Area Guidelines*, dated June 9, 2003, the Department held four public workshops in order to receive input from interested parties on the subject of market area codes on Florida assessment rolls. These workshops were held on the following dates and at the following locations: January 4, 2001 in Orlando; April 3, 2001 in Tallahassee; June 26, 2002 in Tallahassee; and July 9, 2002 in Orlando. The input received from these workshops and a few written comments was considered in the development of the initial draft of these uniform guidelines.

The initial draft of the *Florida Uniform Market Area Guidelines*, dated June 9, 2003, was based on Florida law, manual of instructions, regulatory requirements, and consideration of other sources of information. Such other sources of information considered in the development of the initial draft include the following: 1) Florida Property Appraisers and their representatives; 2) Florida taxpayers and their representatives; 3) the Property Tax Administration Task Force (includes representatives of a wide variety of Florida stakeholders); 4) professional references; and 5) the expertise, research, and analysis provided by Department of Revenue staff.

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Two public workshops were held for the purpose of receiving public comments on the initial draft. These workshops were held on June 24, 2003 in Tallahassee and on June 26, 2003 in Orlando. These workshops were held on different dates and at different locations in order to maximize the opportunity for input from interested parties. A few written comments on the initial draft also were received. The second draft of the *Florida Uniform Market Area Guidelines*, dated July 10, 2003, was based on consideration of the initial draft, its sources, and the comments received on the initial draft.

Two public workshops were held for the purpose of receiving public comments on the second draft. These workshops were held on July 22, 2003 in Tallahassee and on July 24, 2003 in Orlando. The third draft of the *Florida Uniform Market Area Guidelines*, dated August 14, 2003, is based on consideration of the second draft, its sources, and the comments received on the previous drafts.

The Department has noticed a public workshop to receive input from interested parties on this third draft of the *Florida Uniform Market Area Guidelines*, dated August 14, 2003. This workshop will be held on August 22, 2003 in Orlando. Copies of the workshop notice and the third draft were mailed to all 67 Florida Property Appraisers and to all other persons on the Property Tax Administration's interested parties list.

The third draft is being provided to interested parties for review and comment. Please keep in mind that the intended use of these guidelines is for Florida Property Appraisers to use them to establish market areas and market area codes on real property assessment rolls as required by section 193.114, Florida Statutes. The intended use of market areas is for both Property Appraisers and the Department of Revenue to use them as geographic units in the statistical and analytical review of real property assessment rolls as described in section 195.096(2)(c), Florida Statutes. There may be other applications of market areas in the real estate industry and in the appraisal profession that are not relevant to the development and use of market areas on real property assessment rolls under Florida law.

We appreciate your review and comments, and request that you respond by no later than August 27, 2003. Please direct your comments to the following address: Sharon Gallops, Tax Law Specialist, Department of Revenue, Property Tax Technical Unit, P.O. Box 7443, Tallahassee, Florida 32314-7443.

The workshop notice and third draft also will be posted to the Department's guidelines web page on the Internet at <http://myflorida.com/dor/property/RP/pcomment.html>. E-mail comments can be directed to the address given on that web page.

Enclosure

# The Florida Uniform Market Area Guidelines

Draft Dated  
August 14, 2003

FLORIDA DEPARTMENT OF REVENUE  
PROPERTY TAX ADMINISTRATION PROGRAM

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## 1.0 INTRODUCTION

**1.1 Overview and Legal Framework.** Section 4, Article VII, of the Florida Constitution, requires a just valuation of all real property for ad valorem taxation, with certain exceptions. Section 1(d), Article VIII, of the Florida Constitution, provides for the voters of each county to elect a Property Appraiser every four years. As one of their tasks, Florida Property Appraisers have the statutory responsibility to list and appraise all real property in each county each year for purposes of ad valorem taxation. The Florida Department of Revenue is a state administrative agency with the statutory responsibility of general supervision of the assessment and valuation of real property for purposes of ad valorem taxation. The functions of Property Appraisers and the Department of Revenue are distinct and separate, as described below.

Section 193.085(1), Florida Statutes, states the following: *“The property appraiser shall ensure that all real property within his or her county is listed and valued on the real property assessment roll...”*

Section 195.002(1), Florida Statutes, states the following: *“The Department of Revenue shall have general supervision of the assessment and valuation of property so that all property will be placed on the tax rolls and shall be valued according to its just valuation, as required by the constitution. It shall also have supervision over tax collection and all other aspects of the administration of such taxes. The supervision of the department shall consist primarily of aiding and assisting county officers in the assessing and collection functions, with particular emphasis on the more technical aspects. In this regard, the department shall conduct schools to upgrade assessment skills of both state and local assessment personnel.”*

**1.2 Legislative Intent for Just Valuations and Uniform Assessments.** The short title of Chapter 195, Florida Statutes, is “Property Assessment Administration and Finance Law.” The legislative intent for Chapter 195 is described in Section 195.0012, Florida Statutes, as follows.

*“It is declared to be the legislative purpose and intent in this entire chapter to recognize and fulfill the state’s responsibility to secure a just valuation for ad valorem tax purposes of all property and to provide for a uniform assessment as between property within each county and property in every other county or taxing district.”*

**1.3 Specific Authority for Uniform Market Area Guidelines.** Section 195.027(1), Florida Statutes, generally requires the Department of Revenue to prescribe rules and regulations for certain public officials, including Florida Property Appraisers, who must follow these rules and regulations. Section 195.062(1), Florida Statutes, specifically requires the Department of Revenue to prepare and maintain a current manual of instructions for Property Appraisers that includes rules and regulations. Sections 193.114(2) and (2)(a), Florida Statutes, specifically require the Department of Revenue to promulgate rules and guidelines for the establishment of market area codes (see section 1.4). Together, these statutes describe the specific authority and legislative intent for the promulgation and use of the Florida Uniform Market Area Guidelines.

Section 195.027(1), Florida Statutes, states the following: *“The Department of Revenue shall prescribe reasonable rules and regulations for the assessing and collection of taxes, and such rules and regulations shall be followed by the property appraisers, tax collectors, clerks of the circuit court, and value adjustment boards. It is hereby declared to be the legislative intent that the department shall formulate such rules and regulations that property will be assessed, taxes will be collected, and the administration will be uniform, just, and otherwise in compliance with the requirements of the general law and the constitution.”*

Section 195.062(1), Florida Statutes, states the following: *“The department shall prepare and maintain a current manual of instructions for property appraisers and other officials connected with the administration of property taxes. This manual shall contain all:*

- (a) Rules and regulations.*
- (b) Standard measures of value.*
- (c) Forms and instructions relating to the use of forms and maps.”*

Based on the information in section 1.4 below, the Florida Uniform Market Area Guidelines are part of the rules and regulations portion of the manual of instructions as described above. Unlike the Florida Real Property Appraisal Guidelines, which are described in Section 195.062(1), Florida Statutes, as being part of the standard measures of value portion of the manual of instructions and, therefore, not having the force or effect of administrative rules, these Florida Uniform Market Area Guidelines are requirements and must be followed.

#### **1.4 Legal Provisions and the Variation in Florida’s Real Property Markets.**

Sections 193.114(2) and (2)(a), Florida Statutes, state the following:

*“(2) The department shall promulgate regulations and forms for the preparation of the real property assessment roll to reflect:*

- (a) A brief description of the property for purposes of location and, effective January 1, 1996, a market area code established according to department guidelines...”*

These provisions specifically require the Department of Revenue to promulgate regulations, commonly referred to as rules, for the preparation of real property assessment rolls to include market area codes. These rules must be followed. The statute also provides for market area guidelines, which may be more flexible in their development and application, but which are requirements that also must be followed in order to meet the provisions of law. This application of guidelines allows for appropriate consideration of the variation in the legal, physical, and economic characteristics of the real property markets in Florida’s 67 counties, while still complying with the requirements of Florida law including the legislative intent for uniformity in the just valuation of real property as described in sections 1.2 and 1.3.

The flexibility within this document must not impede the development and application of uniform market area guidelines.

**1.5 Description of Geographic Stratification.** The delineation and use of market areas under Florida law is an application of geographic stratification. For purposes of the Florida Uniform Market Area Guidelines, geographic stratification means to divide, or stratify, the real property parcels within a county into geographic groups, known as market areas, for purposes of statistical and analytical review of real property assessment rolls by both Florida Property Appraisers and the Department of Revenue. Any other applications of geographic stratification are not required and are at the discretion of Florida Property Appraisers. The discussion of geographic stratification in the Florida Uniform Market Area Guidelines may be different from the discussions of the subject found in the single-property appraisal literature and also different from the professional discussion of the subject for producing real property valuations using mass appraisal.

**1.6 Purposes of These Uniform Guidelines.** The purposes of the Florida Uniform Market Area Guidelines are as follows: 1) to provide direction to Florida Property Appraisers for the delineation and coding of market areas for use in the statistical and analytical review of real property assessment rolls; 2) to promote and help facilitate the accuracy and uniformity of just valuations of real property for ad valorem tax purposes, both within and between counties; and 3) to meet the Florida Department of Revenue's statutory obligation to promulgate rules and guidelines for the establishment of market areas and market area codes.

**1.7 Intended Users of These Uniform Guidelines.** Based on the statutory provisions referenced in sections 1.1, 1.2, 1.3, and 1.4 above, the primary intended users of the Florida Uniform Market Area Guidelines are Florida Property Appraisers and the Department of Revenue. Secondary users of these uniform guidelines may include taxpayers, other government agencies, and other interested parties. See sections 1.8 and 1.9 below.

**1.8 Intended Use of These Uniform Guidelines.** The primary intended use of the Florida Uniform Market Area Guidelines is for Florida Property Appraisers and their staff to follow them in the establishment of market areas and market area codes as required by Florida law. Subject to the provisions and limitations specified in section 1.9, the secondary intended use is for both primary and secondary users to consider these uniform guidelines as a source of basic knowledge of the delineation and intended use of market areas under Florida law.

**1.9 Uses For Which These Uniform Guidelines Are Not Intended.** The Florida Uniform Market Area Guidelines were not developed and are not intended to be used as the complete reference source on any of the following or similar subjects: valuation theory, approaches, methods, or procedures; geographic stratification; or applicable provisions of Florida law, manual of instructions, or regulatory requirements. This document should be used in conjunction with other applicable sources of professional knowledge.



**1.10 Sources of Information for These Uniform Guidelines.** The Florida Uniform Market Area Guidelines are based on Florida law, manual of instructions, regulatory requirements, and consideration of additional sources of information. The reference to information from a particular additional source does not necessarily imply that such information is directly applicable to these guidelines or that all information from such additional sources is applicable to the delineation and use of market areas under Florida law. Additional sources of information considered in the development of these uniform guidelines include the following: 1) Florida Property Appraisers and their representatives; 2) Florida taxpayers and their representatives; 3) the Property Tax Administration Task Force (included representatives of a wide variety of Florida stakeholders); 4) professional references; and 5) the expertise, research, and analysis provided by Department of Revenue staff.

## **2.0 IMPORTANT DEFINITIONS**

**2.1 Overview.** This section is not intended to represent a complete glossary of related terms, but rather is intended to include those most applicable. Listed below are certain definitions applicable to the Florida Uniform Market Area Guidelines. In the event of any conflict between these definitions and related definitions from other sources, the definitions below shall apply. These definitions are based on the following: 1) Florida law, manual of instructions, and regulatory requirements; 2) the intended uses of market areas as described herein; and 3) certain definitions from external sources.

**2.2 Stratification.** Stratification is the division of real property populations or samples into two or more groups based on some defined criteria, resulting in property groups with one or more shared characteristics. These groups, or strata, are useful for evaluating the accuracy and uniformity of mass appraisal results. The appropriate level of stratification may range from general with only one criterion to detailed with several criteria. In mass appraisal, the term “stratum” means one group, and the term “strata” means more than one group. For regulatory analysis by the Department of Revenue, Section 195.096(3)(a), Florida Statutes, specifies seven real property classes, or strata. See section 3.2.

**2.3 Geographic Stratification.** For purposes of the Florida Uniform Market Area Guidelines, geographic stratification means to divide, or stratify, the real property parcels within a county into geographic groups, known as market areas, for purposes of statistical and analytical review of real property assessment rolls by both Florida Property Appraisers and the Department of Revenue.

**2.4 Market Area.** A market area is a geographic real property group required by law to be identified by a code on all real property parcels on Florida assessment rolls. The real property group within a market area has legal, physical, and economic characteristics. Market areas are geographic divisions of Florida counties that, for purposes of these uniform guidelines, must not cross county lines. A market area is a geographic stratification based on the seven statutory real property strata, with one

possible exception (see section 5.2). The delineation of market areas must not be based on any non-geographic stratification of real property. A market area is not synonymous with a comparable search area for a particular property or group of real property; a market area may be smaller than or larger than an appropriate comparable search area.

**2.5 Market Area Codes.** A market area code is a two-digit code as described in Rule 12D-8.013(6)(c), Florida Administrative Code. The purpose of market area codes is to identify real property groups that have been geographically stratified into market areas based on the real property types within each of the seven statutory strata described in section 3.2. See sections 5.6 and 5.7.

**2.6 Neighborhood.** A neighborhood is a geographic real property group. Neighborhoods and neighborhood codes are different from market areas and market area codes. Market areas are larger geographic areas than neighborhoods. Neighborhoods may be a subset of market areas. Neighborhoods and neighborhood codes are not required and are developed and used only at the discretion of Florida Property Appraisers.

**2.7 Population.** In the context of real property mass appraisal, a population is defined as all real property parcels within a specified real property group. Depending on the situation, such a real property group may be composed of all real property within a county, all real property within a statutory stratum within a county, all real property within a market area, or all real property within some other specified group.

**2.8 Sample.** In the context of real property mass appraisal, a sample is defined as the qualified sales that may occur within a population of real property within a specified time frame, or the real property parcels that may be randomly selected for appraisal ratio studies.

**2.9 Representative Sample.** Representative sample is defined in one mass appraisal reference as: *“A sample of observations from a larger population of observations that is similar in relevant features to the population; thus statistics calculated from the sample can be expected to be representative of the population being studied.”*<sup>1</sup>

**2.10 Representativeness.** Representativeness is a condition where the characteristics or statistics of a sample may be considered typical of the characteristics or parameters of the population from which the sample is drawn. See definition of representative sample above.

**2.11 Ratio Study.** Ratio study is defined in one ratio study reference as: *“A study of the relationship between appraised or assessed values and market values. Indicators of market values may be either sales (sales ratio study) or independent ‘expert’*

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<sup>1</sup> Robert J. Gloudemans, *Mass Appraisal of Real Property*, (Chicago: International Association of Assessing Officers, 1999), page 395.

*appraisals (appraisal ratio study). Of common interest in ratio studies are the level and uniformity of the appraisals or assessments.”*<sup>2</sup>

### **3.0 USES OF MARKET AREAS IN FLORIDA**

**3.1 Overview.** A clear understanding of the appropriate uses of market areas as defined herein is required in order to develop uniform market area guidelines and to delineate and code market areas in accordance with these uniform guidelines. Florida Property Appraisers are required by law to delineate, code, and report market areas, and the Florida Department of Revenue is statutorily authorized to use market areas in the real property assessment roll review process. Property Appraisers are encouraged to use market areas in their own ratio studies to proactively evaluate regulatory compliance.

**3.2 Statutory Real Property Strata.** Section 195.096(3)(a), Florida Statutes, requires the Department of Revenue to compute statistical and analytical measures on the following seven real property classes, or strata, when the classes constituted 5 percent or more of the total assessed value of real property in a county on the previous tax roll.

1. *Residential property that consists of one primary living unit, including, but not limited to, single-family residences, condominiums, cooperatives, and mobile homes.*
2. *Residential property that consists of two or more primary living units.*
3. *Agricultural, high-water recharge, historic property used for commercial or certain non-profit purposes, and other use-valued property.*
4. *Vacant lots.*
5. *Nonagricultural acreage and other undeveloped parcels.*
6. *Improved commercial and industrial property.*
7. *Taxable institutional or governmental, utility, locally assessed railroad, oil, gas, and mineral land, subsurface rights, and other real property.*

Florida Property Appraisers may also perform statistical analyses on these seven strata for quality assurance and to proactively evaluate regulatory compliance.

**3.3 Intended Use of Market Areas by the Department of Revenue.** Section 195.096(2)(c), Florida Statutes, describes the intended use of market areas by the Department of Revenue during the review of assessment rolls, as follows.

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<sup>2</sup> International Association of Assessing Officers, *Standard on Ratio Studies* (Chicago: International Association of Assessing Officers, 1999), page 40.

*“In conducting assessment ratio studies, the department must use a representative or statistically reliable sample of properties in tests of each classification, stratum, or roll made the subject of a ratio study published by it. The department shall document and retain records of the measures of representativeness of the properties studied in compliance with this section. Such documentation must include a record of the findings used as the basis for the approval or disapproval of the tax roll in each county pursuant to s. 193.1142. In addition, to the greatest extent practicable, the department shall study assessment roll strata by value groups or market areas for each classification, subclassification, or stratum to be studied, to assure the representativeness of ratio study samples. For purposes of this section, the department shall rely primarily on an assessment-to-sales-ratio study in conducting assessment ratio studies in those classifications of property specified in subsection (3) for which there are adequate market sales. The department shall compute the median and the value-weighted mean for each classification or subclassification studied or for the roll as a whole.”*

As indicated in the preceding paragraph, geographic stratification using market areas is part of enhancing representativeness and evaluating appraisal uniformity in ratio studies. This is consistent with the information from a professional source presented in the following paragraph. The preceding paragraph also addresses minimum sample size requirements by references to *“statistically reliable sample of properties”* and *“adequate market sales.”* Therefore, these Florida Uniform Market Area Guidelines must balance, to the greatest extent practicable, the competing considerations of stratifying to enhance representativeness and evaluate uniformity with providing parcel counts per market area sufficient to achieve adequate sample sizes. See sections 5.4 and 5.5.

The following excerpts from a professional source describe the appropriateness of stratifying real property by type, geographic area, and value range for ratio studies.

*“As with any ratio study, a major issue is stratification.”*<sup>3</sup>

*“Property class, geographic area, and value range are good candidates for stratification.”*<sup>4</sup>

The information from these excerpts is consistent with the provisions for ratio studies found in Section 195.096(2)(c), Florida Statutes, and presented above.

**3.4 Use of Market Areas by Florida Property Appraisers.** In order to proactively evaluate regulatory compliance, Property Appraisers are encouraged to conduct sale ratio studies using market areas as defined in these uniform guidelines. At the discretion of Florida Property Appraisers, these market areas also can be used in the value production process. However, the use of market areas in the value production

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<sup>3</sup> Robert J. Gloudemans, *Mass Appraisal of Real Property*, (Chicago: International Association of Assessing Officers, 1999), page 322.

<sup>4</sup> Ibid, page 322.

process, which implies the application of a particular valuation methodology, is not required to achieve successful mass appraisal results. Consistent with Florida law, the Florida Uniform Market Area Guidelines are not intended to suggest or advocate the application of particular valuation methodologies. The use of particular valuation methodologies and the use of market areas in the value production process are decisions of administration discretion on the part of Florida Property Appraisers. See section 11.2 of the Florida Real Property Appraisal Guidelines, adopted November 26, 2002. At their discretion, Property Appraisers are authorized to develop and use, in the value production process, geographic units and related coding systems other than those described in these uniform guidelines, including other market areas and related coding systems.

## **4.0 DEVELOPMENT OF PARCEL COUNTS PER MARKET AREA**

**4.1 Overview.** This section contains information and analysis for the Department of Revenue's development of parcel counts per market area for Florida counties.

**4.2 Property Types Within Market Areas.** As described in section 3.3, Florida law provides for the Department of Revenue to review each of the applicable statutory real property strata within counties using market areas. Therefore, the property types within each coded market area are based on the seven statutory real property strata as described in section 3.2.

**4.3 Statutory Strata Subject to Review Using Market Areas.** Statutory strata 3 and 7 are not subject to statistical and analytical review by the Department of Revenue using market areas. Therefore, a single market area code is suitable for all stratum 3 property within a county and another single market area code is suitable for all stratum 7 property within a county. The other five statutory real property strata are subject to statistical and analytical review by the Department using market areas. Statutory strata 1, 2, and 6 comprise improved real property and were analyzed to develop distributions of parcel counts per market area for implementation of these uniform guidelines. Statutory stratum 4 generally comprises vacant subdivided lots and statutory stratum 5 generally comprises undeveloped parcels. These two strata are subject to significant annual variation in both sale counts and parcel counts due to the creation and development of vacant parcels each year. Additionally, these two strata comprise relatively minor percentages of the value of real property assessment rolls and are often not studied, as provided by Section 195.096(3)(a), Florida Statutes (see section 3.3). Therefore, in order to maximize the efficiency of the uniform market area delineation and maintenance processes, the market area boundaries delineated for stratum 1 property also must be used for stratum 4 property and the market area boundaries for stratum 6 property also must be used for stratum 5 property. The same uniform market area codes must be used for both stratum 1 and stratum 4 property, and the same uniform market area codes must be used for both stratum 6 property and stratum 5 property.

**4.4 Minimum Sample Size Requirement for Market Areas.** As described in sections 3.3 and 3.4, the intended use of market areas is to apply them as geographic strata for the statistical and analytical review of real property assessment rolls. As addressed in section 3.3, adequate sample size (number of qualified sale transactions) is a primary consideration in the delineation and use of market areas for the statistical and analytical review of real property assessment rolls. The Department's assessment roll review program using market areas is designed to review all real property sub-classes with at least 30 or more qualified sales within a calendar year. It is appropriate to provide a buffer between this sale count minimum and the annual variation in sale counts within market areas in order to maximize, from year-to-year, the number of real property sub-classes with at least 30 qualified sales. Therefore, the development of distributions of parcel counts per market area for Florida counties is based, to the greatest extent possible, on parcel counts per market area designed to achieve a minimum sample size within each market area of 40 qualified sale transactions within a calendar year.

**4.5 Methodology for Development of Parcel Counts per Market Area.** The intended use of market areas requires giving primary consideration to balancing the need for stratification with the need for minimum sale counts and, thus, minimum parcel counts, while giving secondary consideration to other factors in the market area delineation process (see section 5.4). Across Florida's 67 counties, the positive correlation between parcel counts and sale counts within statutory strata generally is good but does vary (see first two columns in Tables 2 through 4 in Addendum). The primary unit of interest is sale counts per market area. However, this unit may be subject to significant annual variation. Parcel counts per market area are subject to less variation than sale counts per market area and are easier to determine. Therefore, the development of market areas under these uniform guidelines will be based on distributions of parcel counts per market area designed to maximize, to the greatest extent possible, the number of market areas with adequate sale counts from year-to-year. This will address the statutory provisions for stratification to enhance representativeness and evaluate uniformity while still providing adequate sale counts. These parcel count per market area distributions will substantially enhance the Department of Revenue's primary reliance on sale ratio studies using available sale data as described in Section 195.096(2)(c), Florida Statutes (see section 3.3).

**4.5.1 Existing Market Area Counts and Parcel Counts per Market Area.** Table 1 in the Addendum contains parcel count data, qualified sale count data, and existing market area counts for statutory stratum 1 property for each county. These data were taken from the Department's analysis of the 2002 assessment rolls. The qualified sale data reflect sales that occurred during the 2001 calendar year. Data and analyses for all counties are sorted in ascending order by parcel count. Review of the fourth column, which contains existing market area counts for each county, reveals a lack of uniformity in the existing application of market area codes on Florida assessment rolls. Review of the fifth, sixth, and seventh columns, which contain parcel count per market area analyses, also reveals a lack of uniformity in the existing applications of market area codes on Florida assessment rolls. The eighth column contains an analysis of sale counts per market area. These analyses of existing data from Florida assessment rolls clearly demonstrate the need for the development and application of

the Florida Uniform Market Area Guidelines. [NOTE: Section 4.5.1 and Table 1 are included for informational purposes only and will be deleted from a future draft.]

**4.6 Distribution of Stratum 1 Parcel Counts Per Market Area.** As described in section 3.2, statutory stratum 1 comprises residential property consisting of one primary living unit. The distribution of stratum 1 parcel counts per market area is contained in Table 2 in the Addendum. The information in Table 2 is described as follows.

- (1) The first column, titled “Stratum 1 Parcel Counts,” reflects the number of statutory stratum 1 parcels for each county. The second column, titled “Stratum 1 Sale Counts,” reflects the number of qualified sales for each county. These data were taken from the Department’s analysis of the 2002 final assessment rolls. These two columns contain historical data arrayed in ascending order by parcel counts. The following columns contain calculated data resulting from the analysis.
- (2) The third column, titled “Estimated Parcels per MA,” contains the variable on which this analysis is based. This variable begins with 1,550 and was developed by consideration of the relationship between parcel counts and sale counts within counties.
- (3) The fourth column, titled “Change Scenario,” reflects the percent changes made to the estimated parcels per market area variable in order to create a reasonable distribution of market areas. This distribution generally is designed to maximize the use of available sale data through market area stratification while minimizing the number of counties with sample sizes per market area of less than 40 qualified sales.
- (4) The fifth column, titled “Overall Minimum Parcels/MA,” contains the overall minimum parcel counts per market area for stratum 1 property in each county. These numbers were calculated by multiplying the estimated parcels per market area variable (third column) by 90 percent (.90).
- (5) The sixth column, titled “Overall Optimum Parcels/MA,” contains the overall optimum parcel counts per market area for stratum 1 property for each county. These numbers are based on the estimated parcels per market area from the third column.
- (6) The last column, titled “Overall Maximum Parcels/MA,” contains the overall maximum parcel counts per market area for stratum 1 property in each county. These numbers were calculated by multiplying the estimated parcels per market area variable (third column) by 110 percent (1.10).

**4.7 Distribution of Stratum 2 Parcel Counts Per Market Area.** As described in section 3.2, statutory stratum 2 comprises residential property consisting of two or more primary living units. The distribution of stratum 2 parcel counts per market area is contained in Table 3 in the Addendum. The information in Table 3 is described as follows.

- (1) The data sources and basic model structure in Table 3 is the same as those for Table 2. The parcel count and sale count data in the first two columns are arrayed in ascending order by parcel counts.
- (2) The third column, titled “Estimated Parcels per MA,” contains the variable on which this analysis is based. This variable begins with 1,450 parcels and was developed by consideration of the relationship between parcel counts and sale counts within counties.
- (3) The fourth column, titled “Change Scenario,” reflects the percent changes made to the estimated parcels per market area variable in order to create a reasonable distribution of parcel counts per market area. This distribution generally is designed to maximize the use of available sale data through market area stratification while minimizing the number of counties with indicated sample sizes per market area of less than 40 qualified sales.
- (4) The fifth column, titled “Overall Minimum Parcels/MA,” contains the overall minimum parcel counts per market area for stratum 2 property in each county. These numbers were calculated by multiplying the estimated parcels per market area variable (third column) by 90 percent (.90).
- (5) The sixth column, titled “Overall Optimum Parcels/MA,” contains the overall optimum parcel counts per market area for stratum 2 property for each county. These numbers are based on the estimated parcels per market area from the third column.
- (6) The last column, titled “Overall Maximum Parcels/MA,” contains the overall maximum parcel counts per market area for stratum 2 property in each county. These numbers were calculated by multiplying the estimated parcels per market area variable (third column) by 110 percent (1.10).

**4.8 Distribution of Stratum 6 Parcel Counts Per Market Area.** As described in section 3.2, statutory stratum 6 comprises improved commercial and industrial property. The development of stratum 6 parcel counts per market area is contained in Table 4 in the Addendum. The information in Table 4 is described as follows.

- (1) The data sources and basic model structure in Table 4 is the same as those for Tables 3 and 4. The parcel count and sale count data in the first two columns are arrayed in ascending order by parcel counts.
- (2) The third column, titled “Estimated Parcels per MA,” contains the variable on which this analysis is based. This variable begins with 2,400 parcels and was developed by consideration of the relationship between parcel counts and sale counts within counties.
- (3) The fourth column, titled “Change Scenario,” reflects the percent changes made to the estimated parcels per market area variable in order to create a reasonable



distribution of market areas. This distribution generally is designed to maximize the use of available sale data through market area stratification while minimizing the number of counties with indicated sample sizes per market area of less than 40 qualified sales.

- (4) The fifth column, titled "Overall Minimum Parcels/MA," contains the overall minimum parcel counts per market area for stratum 6 property in each county. These numbers were calculated by multiplying the estimated parcels per market area variable (third column) by 90 percent (.90).
- (5) The sixth column, titled "Overall Optimum Parcels/MA," contains the overall optimum parcel counts per market area for stratum 6 property for each county. These numbers are based on the estimated parcels per market area from the third column.
- (6) The last column, titled "Overall Maximum Parcels/MA," contains the overall maximum parcel counts per market area for stratum 6 property in each county. These numbers were calculated by multiplying the estimated parcels per market area variable (third column) by 110 percent (1.10).

## **5.0 MARKET AREA DELINEATION AND CODING PROCESS**

**5.1 Overview.** This section contains specific requirements that must be followed in the delineation and coding of market areas under Florida law. Other such requirements are specified elsewhere in this document.

**5.2 Property Types Within Market Areas.** As described in section 3.3, the purpose of the statutory provision for real property stratification by market area is for the Department of Revenue to review each of the applicable statutory strata by market area. Therefore, a market area is a geographic stratification based on the seven statutory real property strata described in section 3.2, with one possible exception. Counties with large numbers of residential condominiums may choose to develop a separate system of market area codes for this property type for the intended use described in these uniform guidelines. If a county selects this option, then a separate market area code must be applied to all parcels comprising each residential condominium market area. As described in section 4.3, the market area boundaries and codes for stratum 1 property must be used for stratum 4 property and the market area boundaries and codes for stratum 6 property must be used for stratum 5 property.

**5.3 Uniform Implementation of Market Areas.** Market areas and market area codes must be established on real property assessment rolls in accordance with these uniform guidelines. Since statutory strata 3 and 7 are not subject to statistical and analytical review by the Department of Revenue using market areas, a single market area code must be applied to all stratum 3 property within a county and another single market area code must be applied to all stratum 7 property within a county. Statutory strata 1, 2, 4, 5, and 6 are subject to statistical and analytical review by the

Department using market areas. Primary consideration must be given to the distributions of parcel counts per market area, described in sections 4.6 through 4.8 and presented in Tables 2 through 4 in the Addendum, in the delineation and coding of market areas for statutory strata 1, 2, and 6 within each county (see section 4.3 for discussion of statutory strata 4 and 5). These distributions indicate minimum, optimum, and maximum parcel counts per market area for strata 1, 2, and 6. In order to meet the statutory requirements for uniformity, representativeness, and the maximum practicable use of available sale data for the Department's statutory ratio studies, it may be necessary to provide additional, specific, required parameters for the delineation and coding of market areas, such as minimum or maximum market area counts or other similar parameters. Any such additional parameters may be designed to address the situations in counties with different parcel counts.

**5.4 Legal, Physical, and Economic Characteristics.** The legal, physical, and economic characteristics of real property groups represent useful considerations for identifying reasonable market area boundaries consistent with the with the seven statutory real property strata and with the distributions of parcel counts per market area referenced in section 5.3. Practical examples of such considerations include the following:

- (1) Future land use classifications;
- (2) Municipal limits;
- (3) County lines;
- (4) Census tracts;
- (5) Subdivision boundaries;
- (6) Rivers, Oceans, etc.;
- (7) Major streets, expressways, canals, etc.;
- (8) Changes in the type and size of real property parcels and improvements;
- (9) Changes in real property construction quality and features;
- (10) Changes in the quality of real property maintenance; and
- (11) Changes in real property effective age.

**5.5 Considerations for Market Area Boundaries.** Market area boundaries must be delineated with primary consideration given to the distributions of parcel counts per market area referenced in section 5.3. The relevant legal, physical, and economic factors referenced in section 5.4 also must be considered in the delineation of market area boundaries. The intended use of market area codes on assessment rolls does not require a high degree of specificity in the consideration of these factors for the delineation of market area boundaries, and excessive reliance on these items must not impede primary consideration of the elements referenced in section 5.3. A market area boundary must not extend beyond a county line.

**5.6 Implementation of Market Area Coding Systems.** Market area codes are two-digit codes that are required on each real property parcel on Florida assessment rolls. No county may apply more than 99 market area codes within one of the statutory real property strata. A few of the largest Florida counties will be required to have 100 or more market areas in total. In order to meet the required total number of market areas using a two-digit coding system, these few counties must use the same market area

code for more than one statutory real property strata. For example, such a county could have a market area code 20 for stratum 1 property and also have a market area code 20 for stratum 6 property, even though the boundaries will likely be different. Additionally, as described in section 4.3, the same uniform market area boundaries and codes must be used for both stratum 1 and stratum 4 property, and the same uniform market area boundaries and codes must be used for both stratum 6 property and stratum 5 property.

**5.7 Changes to Market Area Coding Systems.** After submittal of the 2005 preliminary assessment rolls, any significant changes to market area coding systems must be reported to the Department of Revenue, along with appropriate justification, in a manner established by the Department.

**5.8 Market Area Delineation and Coding Period.** The Florida Uniform Market Area Guidelines will become effective on December 31, 2003. By July 1, 2005, Florida Property Appraisers are required to submit preliminary assessment rolls with market area codes on all real property parcels established according to the Department of Revenue's administrative rules and these uniform guidelines. This timeline provides to Property Appraisers a market area delineation and coding period of 18 months, or one and a half years. Any county that does not delineate market areas and submit market area codes on the 2005 preliminary assessment rolls in compliance with these uniform guidelines will be subject to appropriate measures under Florida law.

**5.9 Market Area Delineation and Coding Plans.** Florida Property Appraisers should submit to the Department of Revenue, by no later than June 1, 2004, a market area delineation and coding plan that lists and describes the following items: 1) the intended research steps; 2) the intended implementation steps; 3) the intended market area counts for each of the seven statutory strata; 4) the intended parcel counts for each market area; and 5) the intended market area coding system. After adoption of the Florida Uniform Market Area Guidelines, the Department will provide to Property Appraisers information describing the specific format and content for the recommended market area delineation and coding plans. Property Appraisers are encouraged to submit the market area delineation and coding plans as soon as possible after adoption of these uniform guidelines. The purpose of the market area delineation and coding plans is to properly allocate and manage the time and resources of both Property Appraisers and the Department by identifying early in the delineation and coding period any needs for aid and assistance or corrective actions.

**5.10 Opportunities for Aid and Assistance.** After receipt of the recommended market area delineation and coding plan and upon written request, the Department may provide professional aid and assistance to counties for the delineation and coding of market areas in compliance with these uniform guidelines. Any aid and assistance activities will be subject to resource availability and will be prioritized based on the date of receipt of a written request along with a market area delineation and coding plan in accordance with the required format and content. Where possible, counties are encouraged to submit their 2004 preliminary assessment rolls with preliminary market areas and market area codes established with the intent to comply with these uniform guidelines. Counties selecting this option, and desiring to receive analysis

and feedback from the Department on these preliminary market areas and market area codes, must provide the Department with written notification of such submission so that the Department may plan to provide such analysis and feedback.

**DRAFT**

## **ADDENDUM**

- Table 1 - This contains actual real property parcel counts, qualified sale counts, and existing market area counts for each of the 67 counties for statutory stratum 1, along with low actual parcel counts and high actual parcel counts within existing market areas. These data are sorted in ascending order by actual parcel counts.
- Table 2 - This contains data, analysis, and results pertaining to distributions of parcel counts per market area for statutory stratum 1 real property for each county.
- Table 3 - This contains data, analysis, and results pertaining to distributions of parcel counts per market area for statutory stratum 2 real property for each county.
- Table 4 - This contains data, analysis, and results pertaining to distributions of parcel counts per market area for statutory stratum 6 real property in each county.

TABLE 1

Stratum 1 Parcel Counts	Relative Percent Change	Stratum 1 Sale Counts	Stratum 1 Market Area Counts	Low Parcel Counts per MA	High Parcel Counts per MA	Mean Parcel Counts per MA	Mean Sale Counts per MA
1,451		36	4	86	961	363	9
1,768	21.8%	22	9	44	828	196	2
2,012	13.8%	35	3	173	1,578	671	12
2,963	47.3%	67	1	n/a	n/a	2,963	67
3,040	2.6%	38	4	203	1,966	760	10
3,385	11.3%	78	3	41	3,252	1,128	26
4,088	20.8%	87	12	32	861	341	7
4,212	3.0%	54	6	91	2,194	702	9
4,232	0.5%	108	1	n/a	n/a	4,232	108
4,376	3.4%	150	2	1,233	3,109	2,188	75
4,888	11.7%	133	2	1,344	3,542	2,444	67
5,596	14.5%	169	4	435	3,292	1,399	42
6,026	7.7%	125	11	26	4,213	548	11
6,071	0.7%	126	2	317	5,753	3,036	63
6,532	7.6%	199	7	41	6,096	933	28
6,915	5.9%	236	7	227	2,490	988	34
6,924	0.1%	117	3	757	3,250	2,308	39
7,355	6.2%	177	1	n/a	n/a	7,355	177
8,299	12.8%	290	1	n/a	n/a	8,299	290
8,398	1.2%	243	8	167	3,228	1,050	30
8,932	6.4%	260	4	836	5,427	2,233	65
9,561	7.0%	254	3	238	7,361	3,187	85
11,992	25.4%	220	5	397	5,118	2,398	44
12,357	3.0%	260	6	120	3,565	2,060	43
12,703	2.8%	423	16	29	3,444	794	26
14,258	12.2%	346	2	729	13,529	7,129	173
15,939	11.8%	534	4	221	10,433	3,985	134
21,919	37.5%	778	1	n/a	n/a	21,919	778
21,946	0.1%	762	4	2,325	9,301	5,487	191
25,275	15.2%	1,235	11	29	16,354	2,298	112
26,234	3.8%	1,214	4	382	15,973	6,559	304
29,945	14.1%	832	3	7,584	11,488	9,982	277
34,579	15.5%	1,848	19	21	7,846	1,820	97
37,723	9.1%	2,382	22	74	6,619	1,715	108
44,902	19.0%	1,793	16	233	8,717	2,806	112
48,672	8.4%	2,606	8	29	25,154	6,084	326
49,117	0.9%	2,206	4	2,680	34,517	12,279	552
52,085	6.0%	2,676	8	2,557	13,299	6,511	335
56,574	8.6%	3,006	3	11,989	31,212	18,858	1,002
56,606	0.1%	3,318	6	510	43,446	9,434	553
58,565	3.5%	3,113	10	578	39,946	5,857	311
58,579	0.0%	2,455	34	30	5,594	1,723	72
60,765	3.7%	3,122	9	30	23,574	6,752	347
64,706	6.5%	3,313	10	294	23,246	6,471	331
65,227	0.8%	3,493	4	7,894	23,575	16,307	873
68,636	5.2%	3,714	7	635	26,207	9,805	531
75,525	10.0%	3,839	7	677	38,215	10,789	548
78,874	4.4%	4,669	22	447	10,912	3,585	212
84,586	7.2%	4,173	4	185	51,568	21,147	1,043
95,444	12.8%	3,455	4	13,117	37,319	23,861	864
97,932	2.6%	5,526	8	1,305	35,340	12,242	691
101,622	3.8%	4,286	5	14,618	26,413	20,324	857
115,955	14.1%	6,565	6	5,574	42,182	19,326	1,094
140,438	21.1%	6,386	14	39	39,628	10,031	456
145,454	3.6%	8,447	15	521	37,269	9,697	563
156,775	7.8%	6,935	5	289	62,337	31,355	1,387
161,328	2.9%	9,141	6	8,222	59,362	26,888	1,524
165,179	2.4%	7,807	23	318	27,596	7,182	339
185,654	12.4%	8,685	28	1,732	24,251	6,631	310
203,548	9.6%	11,881	37	23	34,815	5,501	321
228,627	12.3%	10,511	5	37,756	55,140	45,725	2,102
257,539	12.6%	13,994	6	40,268	44,496	42,923	2,332
295,903	14.9%	15,646	14	5,469	49,162	21,136	1,118
346,950	17.3%	19,000	34	1,530	28,053	10,204	559
479,659	38.3%	25,847	18	64	272,901	26,648	1,436
575,567	20.0%	45,316	8	58	108,636	71,946	5,665
601,882	4.6%	36,927	7	2,468	275,385	85,983	5,275

TABLE 2						
Stratum 1 Parcel Counts	Stratum 1 Sale Counts	Estimated Parcels per MA	Change Scenario	Overall Minimum Parcels/MA	Overall Optimum Parcels/MA	Overall Maximum Parcels/MA
1,451	36	1,550		1,395	1,550	1,705
1,768	22	1,566	1.0%	1,409	1,566	1,722
2,012	35	1,581	1.0%	1,423	1,581	1,739
2,963	67	1,597	1.0%	1,437	1,597	1,757
3,040	38	1,613	1.0%	1,452	1,613	1,774
3,385	78	1,629	1.0%	1,466	1,629	1,792
4,088	87	1,645	1.0%	1,481	1,645	1,810
4,212	54	1,662	1.0%	1,496	1,662	1,828
4,232	108	1,678	1.0%	1,511	1,678	1,846
4,376	150	1,695	1.0%	1,526	1,695	1,865
4,888	133	1,712	1.0%	1,541	1,712	1,883
5,596	169	1,729	1.0%	1,556	1,729	1,902
6,026	125	1,747	1.0%	1,572	1,747	1,921
6,071	126	1,764	1.0%	1,588	1,764	1,940
6,532	199	1,782	1.0%	1,604	1,782	1,960
6,915	236	1,800	1.0%	1,620	1,800	1,979
6,924	117	1,817	1.0%	1,636	1,817	1,999
7,355	177	1,836	1.0%	1,652	1,836	2,019
8,299	290	1,854	1.0%	1,669	1,854	2,039
8,398	243	1,873	1.0%	1,685	1,873	2,060
8,932	260	1,891	1.0%	1,702	1,891	2,080
9,561	254	1,910	1.0%	1,719	1,910	2,101
11,992	220	1,958	2.50%	1,762	1,958	2,154
12,357	260	2,007	2.50%	1,806	2,007	2,208
12,703	423	2,057	2.50%	1,851	2,057	2,263
14,258	346	2,109	2.50%	1,898	2,109	2,319
15,939	534	2,161	2.50%	1,945	2,161	2,377
21,919	778	2,215	2.50%	1,994	2,215	2,437
21,946	762	2,271	2.50%	2,044	2,271	2,498
25,275	1,235	2,327	2.50%	2,095	2,327	2,560
26,234	1,214	2,386	2.50%	2,147	2,386	2,624
29,945	832	2,445	2.50%	2,201	2,445	2,690
34,579	1,848	2,506	2.50%	2,256	2,506	2,757
37,723	2,382	2,569	2.50%	2,312	2,569	2,826
44,902	1,793	2,633	2.50%	2,370	2,633	2,897
48,672	2,606	2,699	2.50%	2,429	2,699	2,969
49,117	2,206	2,767	2.50%	2,490	2,767	3,043
52,085	2,676	2,836	2.50%	2,552	2,836	3,119
56,574	3,006	2,907	2.50%	2,616	2,907	3,197
56,606	3,318	2,979	2.50%	2,681	2,979	3,277
58,565	3,113	3,054	2.50%	2,748	3,054	3,359
58,579	2,455	3,130	2.50%	2,817	3,130	3,443
60,765	3,122	3,208	2.50%	2,888	3,208	3,529
64,706	3,313	3,289	2.50%	2,960	3,289	3,617
65,227	3,493	3,371	2.50%	3,034	3,371	3,708
68,636	3,714	3,455	2.50%	3,110	3,455	3,801
75,525	3,839	3,541	2.50%	3,187	3,541	3,896
78,874	4,669	3,630	2.50%	3,267	3,630	3,993
84,586	4,173	3,721	2.50%	3,349	3,721	4,093
95,444	3,455	3,814	2.50%	3,432	3,814	4,195
97,932	5,526	3,909	2.50%	3,518	3,909	4,300
101,622	4,286	4,105	5.00%	3,694	4,105	4,515
115,955	6,565	4,310	5.00%	3,879	4,310	4,741
140,438	6,386	4,525	5.00%	4,073	4,525	4,978
145,454	8,447	4,751	5.00%	4,276	4,751	5,227
156,775	6,935	4,989	5.00%	4,490	4,989	5,488
161,328	9,141	5,239	5.00%	4,715	5,239	5,762
165,179	7,807	5,500	5.00%	4,950	5,500	6,050
185,654	8,685	5,775	5.00%	5,198	5,775	6,353
203,548	11,881	6,064	5.00%	5,458	6,064	6,671
228,627	10,511	6,367	5.00%	5,731	6,367	7,004
257,539	13,994	6,686	5.00%	6,017	6,686	7,354
295,903	15,646	7,020	5.00%	6,318	7,020	7,722
346,950	19,000	7,020	0.00%	6,318	7,020	7,722
479,659	25,847	7,020	0.00%	6,318	7,020	7,722
575,567	45,316	7,020	0.00%	6,318	7,020	7,722
601,882	36,927	7,020	0.00%	6,318	7,020	7,722

TABLE 3						
Stratum 2 Parcel Counts	Stratum 2 Sale Counts	Estimated Parcels per MA	Change Scenario	Overall Minimum Parcels/MA	Overall Optimum Parcels/MA	Overall Maximum Parcels/MA
0	0	1,450		1,305	1,450	1,595
7	0	1,450	0.0%	1,305	1,450	1,595
7	0	1,450	0.0%	1,305	1,450	1,595
8	0	1,450	0.0%	1,305	1,450	1,595
9	0	1,450	0.0%	1,305	1,450	1,595
9	0	1,450	0.0%	1,305	1,450	1,595
12	0	1,450	0.0%	1,305	1,450	1,595
12	0	1,450	0.0%	1,305	1,450	1,595
17	0	1,450	0.0%	1,305	1,450	1,595
18	1	1,450	0.0%	1,305	1,450	1,595
19	0	1,450	0.0%	1,305	1,450	1,595
20	1	1,450	0.0%	1,305	1,450	1,595
26	1	1,450	0.0%	1,305	1,450	1,595
32	1	1,450	0.0%	1,305	1,450	1,595
35	1	1,450	0.0%	1,305	1,450	1,595
39	0	1,450	0.0%	1,305	1,450	1,595
43	1	1,450	0.0%	1,305	1,450	1,595
49	2	1,450	0.0%	1,305	1,450	1,595
59	0	1,450	0.0%	1,305	1,450	1,595
59	1	1,450	0.0%	1,305	1,450	1,595
79	2	1,450	0.0%	1,305	1,450	1,595
82	0	1,450	0.0%	1,305	1,450	1,595
110	2	1,450	0.0%	1,305	1,450	1,595
122	6	1,450	0.0%	1,305	1,450	1,595
127	3	1,450	0.0%	1,305	1,450	1,595
162	3	1,450	0.0%	1,305	1,450	1,595
208	8	1,450	0.0%	1,305	1,450	1,595
233	4	1,450	0.0%	1,305	1,450	1,595
243	4	1,450	0.0%	1,305	1,450	1,595
321	8	1,450	0.0%	1,305	1,450	1,595
354	13	1,450	0.0%	1,305	1,450	1,595
393	25	1,450	0.0%	1,305	1,450	1,595
398	6	1,450	0.0%	1,305	1,450	1,595
434	21	1,450	0.0%	1,305	1,450	1,595
446	12	1,450	0.0%	1,305	1,450	1,595
632	15	1,450	0.0%	1,305	1,450	1,595
779	37	1,450	0.0%	1,305	1,450	1,595
808	33	1,450	0.0%	1,305	1,450	1,595
897	12	1,450	0.0%	1,305	1,450	1,595
904	29	1,450	0.0%	1,305	1,450	1,595
945	25	1,450	0.0%	1,305	1,450	1,595
1,030	38	1,450	0.0%	1,305	1,450	1,595
1,056	58	1,450	0.0%	1,305	1,450	1,595
1,239	52	1,450	0.0%	1,305	1,450	1,595
1,291	53	1,450	0.0%	1,305	1,450	1,595
1,373	12	1,450	0.0%	1,305	1,450	1,595
1,557	66	1,450	0.0%	1,305	1,450	1,595
1,875	44	1,450	0.0%	1,305	1,450	1,595
1,992	47	1,450	0.0%	1,305	1,450	1,595
2,045	42	1,450	0.0%	1,305	1,450	1,595
2,173	28	1,450	0.0%	1,305	1,450	1,595
2,359	80	1,450	0.0%	1,305	1,450	1,595
2,629	155	1,450	0.0%	1,305	1,450	1,595
2,819	129	1,450	0.0%	1,305	1,450	1,595
3,224	90	1,450	0.0%	1,305	1,450	1,595
3,960	92	1,450	0.0%	1,305	1,450	1,595
4,677	224	1,450	0.0%	1,305	1,450	1,595
5,050	110	1,450	0.0%	1,305	1,450	1,595
5,100	158	1,450	0.0%	1,305	1,450	1,595
5,807	296	1,450	0.0%	1,305	1,450	1,595
6,092	132	1,450	0.0%	1,305	1,450	1,595
9,385	650	1,450	0.0%	1,305	1,450	1,595
11,177	443	1,450	0.0%	1,305	1,450	1,595
12,165	428	1,450	0.0%	1,305	1,450	1,595
14,289	731	1,450	0.0%	1,305	1,450	1,595
21,342	1,378	1,450	0.0%	1,305	1,450	1,595
36,209	1,617	1,450	0.0%	1,305	1,450	1,595



TABLE 4

Stratum 6 Parcel Counts	Stratum 6 Sale Counts	Estimated Parcels per MA	Change Scenario	Overall Minimum Parcels/MA	Overall Optimum Parcels/MA	Overall Maximum Parcels/MA
92	0	2,400		2,160	2,400	2,640
103	5	2,400	0.0%	2,160	2,400	2,640
120	0	2,400	0.0%	2,160	2,400	2,640
157	3	2,400	0.0%	2,160	2,400	2,640
162	0	2,400	0.0%	2,160	2,400	2,640
237	7	2,400	0.0%	2,160	2,400	2,640
269	9	2,400	0.0%	2,160	2,400	2,640
278	2	2,400	0.0%	2,160	2,400	2,640
288	2	2,400	0.0%	2,160	2,400	2,640
291	14	2,400	0.0%	2,160	2,400	2,640
313	8	2,400	0.0%	2,160	2,400	2,640
332	6	2,400	0.0%	2,160	2,400	2,640
342	6	2,400	0.0%	2,160	2,400	2,640
355	4	2,400	0.0%	2,160	2,400	2,640
362	7	2,400	0.0%	2,160	2,400	2,640
433	10	2,400	0.0%	2,160	2,400	2,640
437	2	2,400	0.0%	2,160	2,400	2,640
444	4	2,400	0.0%	2,160	2,400	2,640
460	0	2,400	0.0%	2,160	2,400	2,640
516	8	2,400	0.0%	2,160	2,400	2,640
530	11	2,400	0.0%	2,160	2,400	2,640
623	14	2,400	0.0%	2,160	2,400	2,640
634	7	2,400	0.0%	2,160	2,400	2,640
662	8	2,400	0.0%	2,160	2,400	2,640
709	9	2,400	0.0%	2,160	2,400	2,640
761	5	2,400	0.0%	2,160	2,400	2,640
797	7	2,400	0.0%	2,160	2,400	2,640
929	16	2,400	0.0%	2,160	2,400	2,640
986	21	2,400	0.0%	2,160	2,400	2,640
1,015	14	2,400	0.0%	2,160	2,400	2,640
1,128	28	2,400	0.0%	2,160	2,400	2,640
1,309	19	2,400	0.0%	2,160	2,400	2,640
1,415	32	2,400	0.0%	2,160	2,400	2,640
1,484	17	2,400	0.0%	2,160	2,400	2,640
1,709	37	2,400	0.0%	2,160	2,400	2,640
1,746	31	2,400	0.0%	2,160	2,400	2,640
1,769	14	2,400	0.0%	2,160	2,400	2,640
1,924	37	2,400	0.0%	2,160	2,400	2,640
2,014	38	2,400	0.0%	2,160	2,400	2,640
2,098	42	2,400	0.0%	2,160	2,400	2,640
2,174	24	2,400	0.0%	2,160	2,400	2,640
2,264	43	2,400	0.0%	2,160	2,400	2,640
2,349	32	2,400	0.0%	2,160	2,400	2,640
2,531	75	2,400	0.0%	2,160	2,400	2,640
3,325	44	2,400	0.0%	2,160	2,400	2,640
3,376	54	2,400	0.0%	2,160	2,400	2,640
3,509	38	2,400	0.0%	2,160	2,400	2,640
3,553	60	2,400	0.0%	2,160	2,400	2,640
3,693	89	2,400	0.0%	2,160	2,400	2,640
3,780	64	2,400	0.0%	2,160	2,400	2,640
4,149	92	2,400	0.0%	2,160	2,400	2,640
4,298	75	2,400	0.0%	2,160	2,400	2,640
4,921	41	2,400	0.0%	2,160	2,400	2,640
5,062	111	2,400	0.0%	2,160	2,400	2,640
5,425	90	2,400	0.0%	2,160	2,400	2,640
5,947	152	2,400	0.0%	2,160	2,400	2,640
5,993	44	2,400	0.0%	2,160	2,400	2,640
6,808	100	3,120	30.0%	2,808	3,120	3,432
8,203	121	3,120	0.0%	2,808	3,120	3,432
8,869	125	3,120	0.0%	2,808	3,120	3,432
11,166	164	3,120	0.0%	2,808	3,120	3,432
11,815	158	3,120	0.0%	2,808	3,120	3,432
12,888	285	3,120	0.0%	2,808	3,120	3,432
14,631	183	3,120	0.0%	2,808	3,120	3,432
17,133	220	3,120	0.0%	2,808	3,120	3,432
17,343	402	3,120	0.0%	2,808	3,120	3,432
31,227	471	3,120	0.0%	2,808	3,120	3,432